Remarks

Claims 1-19 and 21 remain in this application. Claim 20 has been cancelled. Claims 2 and 16 have been amended. Claim 21 has been added. Claims 1, 10 and 16 are independent claims.

In an Office action dated October 6, 2003, claims 1-20 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Ariglio et al. Applicant respectfully submits that Ariglio et al. does not anticipate all of the material elements of the pending claims. Moreover, it is asserted that the prior art patent does not render the claimed invention obvious under Section 103(a).

To briefly state the standard, a proper Section 102 rejection is established only when a single prior art reference describes all of the material elements cited in rejected claims, so that there are no physical differences. In re Marshall, 198 USPQ 344 (CCPA 1979). Applicant requests reconsideration of the claims in view of the amendments to claims 2 and 16 and in view of the remarks that follow.

A. The Pending Claims

Applicant submits that the claims describe a number of features that are not anticipated, taught or suggested by the Ariglio et al. patent. As one such feature, independent claim 1 and added claim 21 state that the support structure includes a work surface having raised regions at the exhaust openings. In claim 1, the support structure is described as having a work surface with supply openings distributed among exhaust openings. The work surface also includes raised regions at the exhaust openings. Amended claim 2 describes the raised regions as surrounding the exhaust openings, with planar surfaces parallel to the workpiece that is being levitated. As noted on page 4, lines 17-24 of the application as originally filed, the raised regions about the exhaust openings regulate the height of the levitated workpiece by functioning in the same manner as "pinch valves." That is, the distance between the workpiece and the planar upper surfaces of the raised regions will regulate the characteristics of pockets of lifting pressure, since these distances determine the flow rate into the exhaust openings. The raised regions described in the claims are not anticipated, taught or suggested by Ariglio et al.

As a separately claimed feature, original independent claim 10 and amended independent claim 16 describe the method and system as including the formation of negative pressure at the exhaust openings to evacuate the levitation gas. A person of ordinary skill in the art would readily recognize that the claim 10 step of "forming a negative pressure" involves intentionally forming vacuum pressure. In amended claim 16, it is stated that the air pressure control means is connected to control levels of vacuum pressure at ends of the exhaust openings opposite to the item of interest (i.e., the levitated workpiece). This is consistent with the description of the invention on page 10, lines 5-19 of the application as originally filed. In this portion of the application, it is stated that the system may include a means for providing active control over the flying height of the workpiece 94. The active air pressure control is particularly useful for applications in which the curvature of the workpiece is relatively easily influenced. The applied pressure can be balanced against the gas support film between the workpiece and the support structure, so that the stiffness characteristics of the gas support film define the ability to flatten the workpiece, such as glass. The features of claims 10 and amended claim 16 are not anticipated, taught or suggested by the Ariglio et al. patent.

B. The Teachings of Ariglio et al.

In citing Ariglio et al., it was noted in the Office action that the patent teaches an inspection system that includes a structure having supply openings (64) distributed among exhaust openings (66). The openings are shown in Fig. 7 of the patent. The description of the openings is found in column 3, line 59 through column 4, line 4.

It is not directly asserted in the Office action that the work surface of the Ariglio et al. patent includes "raised regions at the exhaust openings." Fig. 7 of the patent does not show this claimed feature. Moreover, the description of the drawings of the prior art patent does not establish a *prima facie* case of anticipation with regard to this feature.

The surface of the air table (12) of Ariglio et al. is generally flat. The patent does state that there is a tapered gap interface (68) adjacent to each gap (20a and 20b) between sections (12a, 12b and 12c) of the air table. In the side view of Fig. 1, it can be seen that the tapered gap interfaces at the gaps (20a and 20c) are downward tapers. However, this does not anticipate,

teach or suggest supply openings distributed among exhaust openings on a work surface, with the work surface having raised regions at the exhaust openings (claim 1). Nor does the patent anticipate, teach or suggest that each exhaust opening is surrounded by a raised region of the work surface (claim 12).

Regarding the flow of gas through the exhaust openings, the Office action does not directly assert that Ariglio et al. anticipates forming a negative pressure at the exhaust openings. Rather, the Office action states that the exhaust openings of Ariglio et al. are maintained at a pressure that enables a reverse flow of fluid. Applicant states that the prior art patent has been carefully reviewed and no teaching of forming a negative pressure has been found. It follows that the prior art patent does not anticipate an inspection system in which an air pressure control means is connected to control levels of vacuum pressure at ends of exhaust openings opposite to an item being pneumatically supported (independent claim 16).

The air exhaust holes (66) of Ariglio et al. are identified as "exhaust" holes, but the use of this term does not satisfy the requirement that a *prima facie* case of anticipation be presented. "Exhaust" does not inherently involve the use of negative pressure. In fact, it is clear from a reading of Ariglio et al. that the patent does not support a conclusion that a negative pressure is required to achieve "exhaust." In describing the process of floating a glass sheet above the table, the patent states, "In view of the fact that edge portions of the glass sheet will lose or exhaust more air from the sheet surface than centrally of the sheet, exhaust holes are provided . . ." (Ariglio et al.: column 3, lines 57-59). By describing the escape of air at the edges of the glass sheet as being an "exhaust" of air, and by describing the prior art inspection system without connections of a vacuum device to the air table, the prior art patent provides strong evidence that persons of ordinary skill in the art do not consider "negative pressure" to be directly related to an "exhaust" operation.

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited. In the case that any issues regarding this application can

be resolved expeditiously via a telephone conversation, Applicant invites the Examiner to call Terry McHugh at (650) 969-8458.

Respectfully submitted,

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Terry McHugh
Reg. No. 33,261

Telephone: (650) 969-8458
Facsimile: (650) 969-6216